

Work Order ID 78356

78356

Page 1

Thursday, January 05, 2012 3:23:53 PM

Item ID: D4022-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fuel Transfer Pump Assembly
 Start Date: 1/6/2012 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 1/27/2012 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: MF Date: 12-01-05 Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4022	B

100 0.00

100

Small Fab Memo 0.00

Small Fab Assemble as per dwg D4022

Metal set A4 batch: M 116143
 O-ring Lub as per dwg batch: M 118348

\$ 4 FF 12-02-08

110 QC5- Inspect part completeness to step on W/O 0.00

110

QC Memo 0.00

Quality Control

161515
 161518
 161514
 161519

51260/07

(X4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____
Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 78356

78356

Page 2

Thursday, January 05, 2012 3:23:53 PM

Item ID: D4022-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fuel Transfer Pump Assembly
 Start Date: 1/6/2012 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 1/27/2012 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Identify as per dwg & Stock Location SH	0.00							
120									
Packaging	Memo	0.00							
Packaging									
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	0.00							
Quality Control									

SP 12-02-09

12/2/13

P12-02-5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, January 05, 2012 3:23:53 PM

Page 1

Work Order ID: 78356

Parent Item: D4022-041

Parent Item Name: Fuel Transfer Pump Assembly

Start Date: 1/6/2012

Required Date: 1/27/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP rev A 10.02.02 new issue Prelim EC verified by:DD IPP Rev:B 10.05.17 as per ECN10-562 DD verf:EC IPP REV:C 11.11.22 PER ECN11-665 DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4022-1 Fuel Transfer Pump		Manufactured	No			100	Each	0.0000	1	4	FF	12-02-08	
D4022-5 Thermal Switch		Manufactured	No			100	Each	13.0000	1	4	FF	12-02-08	

Location

Loc Qty

Loc Code

ST110

13

72655

3

75585

10

Purchased

No

100

Each

33.0000

2

8

120303

FF

12-02-08

Location

Loc Qty

Loc Code

ST326

33

119083

10

119438

20

119531

3

Purchased

No

100

Each

33.0000

2

8

FF

12-02-08

Location

Loc Qty

Loc Code

ST293

20

120123

20

ST294

13

119537

13

3

5

MS29512-06

O-RING

Purchased

No

100

Each

33.0000

2

8

FF

12-02-08

ST293

20

120123

20

ST294

13

119537

13

3

5

12-02-08
AN818-6D
Nut
AN815-6D
(See Attach e-mail)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

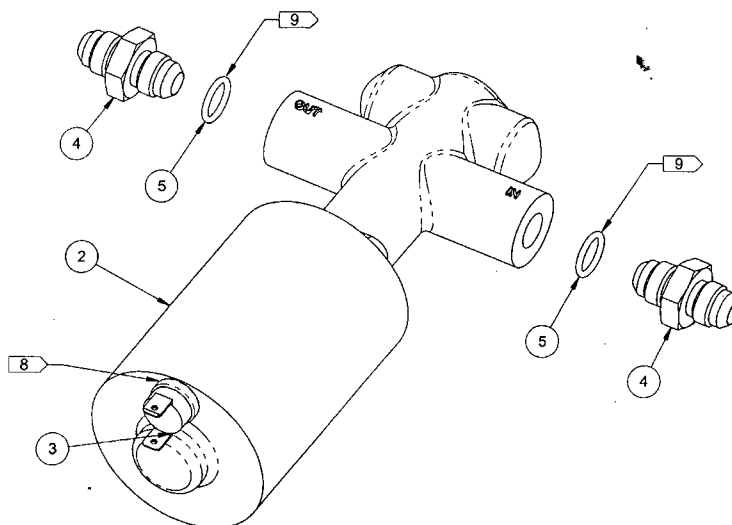
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION	JOHN CAMERON AVIATION PART NUMBER
1	X	D4022-041	FUEL TRANSFER PUMP ASSEMBLY	A8150-B1-JCA
2	1	D4022-1	FUEL TRANSFER PUMP	
3	1	D4022-5	THERMAL SWITCH	
4	2	AN818-6D	FITTING, UNION	
5	2	MS29512-06	O RING	



D4022-041 FUEL TRANSFER PUMP ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4022-041" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 2.61 lbs
- 8) ATTACH D4022-5 THERMAL SWITCH TO D4022-1 FUEL PUMP IN LOCATION SHOWN USING METALSET A4
- 9) LUBRICATE O-RING WITH ULTRACHEM ASSEMBLY FLUID #1, FUEL-LUBE, MOLYKOTE 55 O-RING GREASE OR EQUIVALENT

B	CORRECTED SPELLING OF "AEROSPARES"	PC	11.09.28
A	NEW ISSUE	HS	10.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN	AS		
DRAWN	PC		
CHECKED	AS		
MFG. APPR.			
APPROVED	142		
DE APPR.	SA		
DATE	11.09.28		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D4022	REV. B SHEET 1 OF 4
TITLE FUEL PUMP	SCALE NTS

COPYRIGHT © 2010 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE LTD

RELEASED
2011-11-16
JWC

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

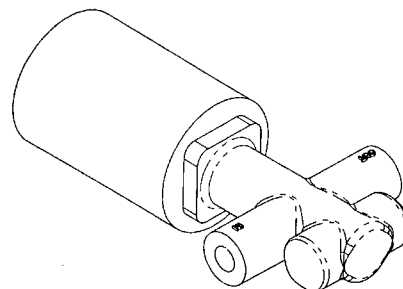
DART AEROSPACE
PART NUMBER

D4022-1

JOHN CAMERON AVIATION
PART NUMBER

REF JCA/M47/D3/SHT 13

SPECIFICATION CONTROL DRAWING



DART PART NUMBER	SUPPLIER	SUPPLIER PART NUMBER	OPERATING VOLTAGE	FLOW (GPH)	OUTPUT PRESSURE (PSI)	TEMPERATURE RANGE
D4022-1	WELDON	A8150-B1	24 VDC	35 - 50	5 - 25	-65°F TO +185°F
	AEROSPARES ACCESSORIES	A8150-B1	24 VDC	35 - 50	5 - 25	-65°F TO +185°F

△B

D4022-X FUEL TRANSFER PUMP

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 2.6 lbs

DESIGN	BC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	BC		
CHECKED	BC	DRAWING NO. D4022	REV. B
MFG. APPR.			SHEET 2 OF 4
APPROVED	MP	TITLE	SCALE
DE APPR.	#	FUEL PUMP	NTS
DATE	11.09.28	COPYRIGHT © 2010 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

RELEASED
2011-11-16
JMP

78350

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

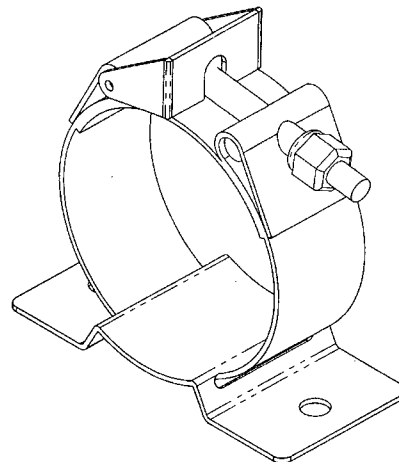
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4022-3	REF JCA/M47/D3/SHT 13

SPECIFICATION CONTROL DRAWING



DART PART NUMBER	POSSIBLE SUPPLIER	SUPPLIER PART NUMBER	MATERIAL	FITS MOTOR SIZE (ϕ)
D4022-3	WELDON	TC 250-100	STAINLESS STEEL	2.5
	AIRCRAFT SPRUCE AND SPECIALTY	05-00021	STAINLESS STEEL	2.5
	AEROSPACE ACCESSORIES	TC 250-100	STAINLESS STEEL	2.5

D4022-X FUEL PUMP MOUNTING BRACKET

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.33 lbs

DESIGN	<i>JB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>DL</i>		
CHECKED	<i>JB</i>	DRAWING NO. D4022	REV. B
MFG. APPR.			SHEET 3 OF 4
APPROVED	<i>MD</i>	TITLE	SCALE
DE APPR.	<i>MD</i>	FUEL PUMP	NTS
DATE	11.09.28	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

78350

RELEASED
2011-11-16

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

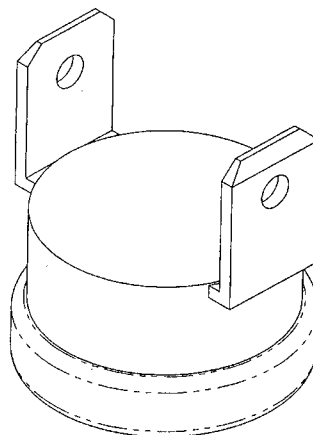
Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR: Yes No** **DQA:** _____ **Date:** _____
Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4022-5	REF JCA/M47/D3/SHT 13

SPECIFICATION CONTROL DRAWING



DART PART NUMBER	POSSIBLE SUPPLIER	SUPPLIER PART NUMBER	ALTERNATE PART NUMBER	TEMPERATURE WHEN SWITCH OPENS
D4022-5	FARNELL	1006847	3775628	125°F
	HONEST-WELL	T23A125BSR2-15	3775628	125°F
	NEWARK	98K1992	3775628	125°F

D4022-X THERMAL SWITCH

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A

DESIGN	<i>JS</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>JS</i>		
CHECKED	<i>JS</i>	DRAWING NO. D4022	REV. B
MFG. APPR.			SHEET 4 OF 4
APPROVED	<i>MS</i>	TITLE FUEL PUMP	SCALE NTS
DE APPR.	<i>JS</i>	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	
DATE	11.09.28		

78350

RELEASED
2011-11-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

David Duval

From: Daniel Campbell <dcampbell@dartaero.com>
Sent: Wednesday, February 08, 2012 11:07 AM
To: 'David Duval'; hsiemens@dartaero.com
Cc: 'Linda Lacelle'; 'Mike Petsche'
Subject: RE: D4022-041

Hi,

I agree – the dwg is wrong.

I will update D4022-041 so that it uses an AN815-6D union instead of the AN818-6D (which is a nut).

Cheers,
Dan

From: David Duval [<mailto:dduval@dartaero.com>]
Sent: February-08-12 7:44 AM
To: Daniel Campbell; hsiemens@dartaero.com
Cc: Linda Lacelle; 'Mike Petsche'
Subject: D4022-041

On the pick list D4022-041, AN818-6D needs to be change for AN815-6D

David Duval
Production Engineering Coordinator



DART AEROSPACE
1270 Aberdeen Street
Hawkesbury Ontario
Canada K6A 1K7
Tel: (613) 632-5200
dduval@dartaero.com



Please consider your environmental responsibility before printing this e-mail